



## Technical Data Sheet

### ELITE™ 5538G CIR Enhanced Polyethylene Resin

#### Main Characteristics

- Enhanced polyethylene resin for high modulus blown film applications
- Various industrial and consumer specialty films

#### Sustainability Attribute:



#### Complies with

- U.S. FDA 21 CFR 177.1520 (c) 3.2a
- EU, No 10/2011
- ISCC Plus certification for circular plastics

Consult the regulations for complete details.

#### Additive

- Antiblock: No
- Processing aid: No
- Slip: No

#### Properties<sup>1</sup>

| Physical                              | Nominal Value | Unit (English)    | Nominal Value | Unit (SI)         | Test Method     |
|---------------------------------------|---------------|-------------------|---------------|-------------------|-----------------|
| Density                               | 0.941         | g/cm <sup>3</sup> | 0.941         | g/cm <sup>3</sup> | ASTM D792       |
| Melt Index (190°C/2.16 kg)            | 1.3           | g/10 min          | 1.3           | g/10 min          | ASTM D1238      |
| <b>Films</b>                          |               |                   |               |                   |                 |
| Film Thickness - Tested               | 2.0           | mil               | 51            | µm                |                 |
| Film Puncture Force (2.0 mil (51 µm)) | 10.3          | lbf               | 46.0          | N                 | Internal Method |
| Tensile Strength                      |               |                   |               |                   | ASTM D882       |
| MD: Break, 2.0 mil (51 µm)            | 6380          | psi               | 44.0          | MPa               |                 |
| TD: Break, 2.0 mil (51 µm)            | 5660          | psi               | 39.0          | MPa               |                 |
| Tensile Elongation                    |               |                   |               |                   | ASTM D882       |
| MD: Break, 2.0 mil (51 µm)            | 1000          | %                 | 1000          | %                 |                 |
| TD: Break, 2.0 mil (51 µm)            | 1100          | %                 | 1100          | %                 |                 |
| Dart Drop Impact (2.0 mil (51 µm))    | 99            | g                 | 99            | g                 | ASTM D1709A     |
| Elmendorf Tear Strength               |               |                   |               |                   | ASTM D1922      |
| MD: 2.0 mil (51 µm)                   | 82            | g                 | 82            | g                 |                 |
| TD: 2.0 mil (51 µm)                   | 650           | g                 | 650           | g                 |                 |
| <b>Thermal</b>                        |               |                   |               |                   |                 |
| Melting Temperature (DSC)             | 264           | °F                | 129           | °C                | Internal Method |
| <b>Extrusion</b>                      |               |                   |               |                   |                 |
| Melt Temperature                      | 446           | °F                | 230           | °C                |                 |



## Properties (Cont.)

| Extrusion Notes                        | Nominal Value | Unit (English) | Nominal Value | Unit (SI) | Test Method |
|--|---------------|----------------|---------------|-----------|-------------|
| Fabrication Conditions for Blown Film: |               |                |               |           |             |
| • Screw Size: 60/70 mm; 30:1 LID       |               |                |               |           |             |
| • Screw Type: barrier screw            |               |                |               |           |             |
| • Die Gap: 2.3 mm                      |               |                |               |           |             |
| • Melt Temperature: 230°C              |               |                |               |           |             |
| • Output: 150 Kg/hr                    |               |                |               |           |             |
| • Die Diameter: 150 mm                 |               |                |               |           |             |
| • Blow-Up Ratio: 2.5:1                 |               |                |               |           |             |

